EMI-RFI Filters GF Metal Box Single-Phase Filters



Overview

The KEMET GF compact metal box filters cover singlephase requirements with a wide variety of characteristics. These filters are optimized for both common and normal mode noise. Their input/output terminals are screw type or Faston type.

Applications

- Industrial equipment
- Electronic equipment

Benefits

- Single-phase
- Operating temperature range from -25°C to +55°C
- · UL or CSA approved versions available
- · RoHS compliant



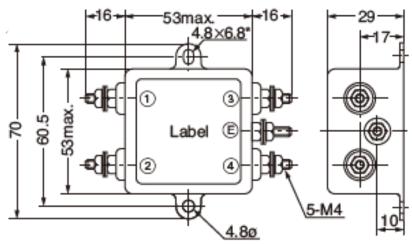
Part Number System

GF-	2	20	U	
Series	Phase	Rated Current (A)	Specification	
GF	2 = Single-phase	0x = 0x A xx = xx A	E = Faston terminal, CSA approved U = Screw terminal, UL approved	



Dimensions – Millimeters

GF-2**U

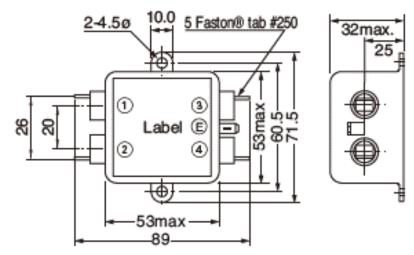


Recommended torque (N-m) maximum

• Line terminal (M4: 0.78)

• Earth terminal (M4: 1.18)

GF-2**E



Recommended torque (N-m) maximum

• Line terminal (M4: 0.78)

• Earth terminal (M4: 1.18)

Faston® is a registered trademark of Tyco Electronics AMP.



Environmental Compliance

All KEMET EMI-RFI Filters are RoHS compliant.



Performance Characteristics

Item	Performance Characteristics
Rated Voltage	250 V
Rated Current Range	5 – 20 A
Withstanding Voltage	1,500 VAC (1 minute, line to ground)
Insulation Resistance	$300 \text{ M}\Omega$ minimum at 500 VDC (1 minute, line to ground)
Leakage Current	1 mA at 250 V/60 Hz maximum
Input/Output Terminal Type	Screw and Faston
Operating Temperature Range	-25°C to +55°C (not including self temperature rise)

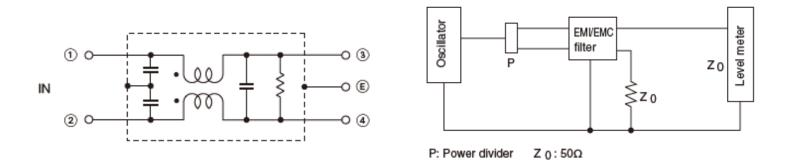
Table 1 – Ratings & Part Number Reference

Part Number	Phase	Rated Voltage AC/DC (V)	Rated Current AC/DC (A)	Leakage Current at 250 V/60 Hz (mA) Maximum	Temperature Rise (K) Maximum	Operating Temperature Range	Terminal Type	Approval	Weight (g)
GF-205U	Single-phase	250	5	1	30	-25°C to +55°C	Screw	UL	130
GF-210U	Single-phase	250	10	1	30	-25°C to +55°C	Screw	UL	140
GF-220U	Single-phase	250	20	1	30	-25°C to +55°C	Screw	UL	150
GF-205E	Single-phase	250	5	1	30	-25°C to +55°C	Faston	CSA	130

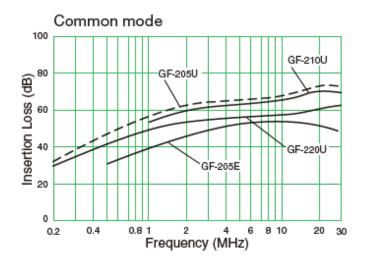


Circuit Diagram

Measuring Circuit - Common Mode



Pulse Attenuation Characteristics





Packaging

Part Type	Packaging Type	Pieces per Box	
GF-2**U	Ткоч	30	
GF-2**E	Tray	50	

Handling Precautions

Precautions for product storage

EMI-RFI Filters should be stored in normal working environments. While the filters themselves are quite robust in other environments, solderability will be degraded by exposure to high temperatures, high humidity, corrosive atmospheres, and long term storage.

KEMET recommends that maximum storage temperature not exceed 40°C and maximum storage humidity not exceed 70% relative humidity and atmospheres should be free of chlorine and sulfur bearing compounds. Temperature fluctuations should be minimized to avoid condensation on the parts. Also, avoid storage near strong magnetic fields as this might magnetize the product.

For optimized solderability, EMI-RFI Filters' stock should be used promptly, preferably within 6 months of receipt.

Export Control

For customers in Japan

For products which are controlled items subject to the "Foreign Exchange and Foreign Trade Law" of Japan, the export license specified by the law is required for export.

For customers outside Japan

EMI-RFI Filters should not be used or sold for use in the development, production, stockpiling, or utilization of any conventional weapons or mass-destructive weapons (nuclear weapons, chemical or biological weapons, or missiles), or any other weapons.



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Although KEMET designs and manufactures its products to the most stringent quality and safety standards, given the current state of the art, isolated component failures may still occur. Accordingly, customer applications which require a high degree of reliability or safety should employ suitable designs or other safeguards (such as installation of protective circuitry or redundancies) in order to ensure that the failure of an electrical component does not result in a risk of personal injury or property damage.

Although all product-related warnings, cautions and notes must be observed, the customer should not assume that all safety measures are indicted or that other measures may not be required.

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